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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
07/731,636	07/17/91	SERLET	B 10010.929

EXAMINER	
PAYNE,M	

B3M1/0602

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ART UNIT	PAPER NUMBER
2316	5

DATE MAILED: 06/02/94

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☑ This application has been examined ☑ Responsive to communication filed on 3/10/94 ☑ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☑ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice re Patent Drawing, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, Form PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____

Part II SUMMARY OF ACTION

1. ☑ Claims 1-18 are pending in the application.
   Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☑ Claims 1-18 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable. ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☑ The proposed drawing correction, filed on 3/10/94, has been ☑ approved. ☐ disapproved (see explanation).
12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

1. This office action is filed in response to application, serial number 07/731,636 (Amendment A), filed on March 10, 1994.

2. The objection to the title, as set forth in the previous office action, has been overcome by applicant's amendments.

3. The disclosure is objected to because of the following informalities:

(a) In figure 1, blocks 101,102,103 & 104 are not labelled. Appropriate correction is required.

4. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure. It is unclear how a receiver object determines whether it has been given all the information it needs to execute a message, in order to determine if a query must be generated and sent back to the sender object. On p.22, paragraph 4, the specification cites that the present invention supports this

feature, but does not fully disclose it. This rejection goes hand in hand with section (c) of the following 35 U.S.C. § 112, second paragraph rejection. This feature must be fully disclosed.

5. Claims 5-7, 11-18 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

6. Claims 1-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following claim language is unclear, vague and/or indefinite:

(a) as per claims 1,2,5,6 & 11, the steps involving 'providing' are unclear and must be clarified. A computer 'providing' something is not a common art term. Another term indicating a computer-implemented action would be clearer, e.g. sending, transmitting, etc.

(b) as per claims 2-10, they are rejected because they depend from previously rejected claim 1. In addition, claims 8 & 9 add irrelevant limitations to the claims from which they depend. Of what relevance is the use of C and Mach to the method of claim 1?

(c) as per claims 5 & 6, it is unclear how the steps of

claim 5 fit into the steps of claim 2, and how the steps of claim 6 fit into the steps of claim 5. Are the steps of these claims executed directly after those of the claim from which they depend? Are they executed every time a message is sent? These seem to be steps which only occur under certain conditions, i.e. the second object needs further information from the first object. This claim must be clarified in conjunction with the above 35 U.S.C. § 112, first paragraph rejection.

(d) as per claims 12-18, they are rejected because they depend from previously rejected claim 11. In addition, claims 15 & 16 add irrelevant limitations to the claims from which they depend. Of what relevance is the use of C and Mach to the method of claim 11?

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the

applicant for patent.

8. Claims 1-4, 8-10 are rejected under 35 U.S.C. § 102(a),(b) & (e) as being anticipated by McCullough, "Transparent Forwarding: First Steps", OOPSLA '87 Proceedings: Conference on Object Oriented Programming, Systems, Languages, and Applications, pp.331-341, 12/1987, and Bennet, "The Design and Implementation of Distributed Smalltalk", OOPSLA '87 Proceedings: Conference on Object Oriented Programming, Systems, Languages, and Applications, pp. 318-330, 12/1987. McCullough and Bennet both teach all that is claimed in these claims.

As stated in the 'BACKGROUND ART' section of the specification, p. 10, paragraph 3, and in the reference, McCullough clearly teaches the use of a 'ProxyObject' and translation (encoding/decoding) of the message before and after transmission. This is taught in both directions, i.e. sending the message and the result. The translation from a language-based message into an operating system-based message is shown in the use of the **doesNotUnderstand:** primitive, the creation of an Ethernet packet, and the linearization of the arguments to the message. These features clearly indicate a system-dependent form of the message which is transmitted to the receiver object. This system-dependent form is then decoded, the message extracted, and the message executed by the receiver object. The result is then transmitted back to the sender in the same manner.

Bennet teaches a similar method of translation. His method includes the use of the **doesNotUnderstand:**, **perform:**, and **remoteSend:** primitives, a 'RemoteObjectTable' which uses a 'messageProcess' to construct a messageArray, and the encoding of an 'argument string'. These features also indicate a system-dependent form which is used during the transmission of the message.

Claims 3 & 4 do not contribute to making the claimed invention distinct from the prior art. The limitation, in claim 3, that the message comprises a method and an argument, is disclosed by Applicant in the 'BACKGROUND ART' section of the specification, p.1, lines 21-25, and is common in the art. It is also understood in the art that executing a message comprises executing the given method on the given argument, as described in claim 4.

Claims 8-10 do not make the claimed invention distinct from the prior art. Regarding claims 8 & 9, see the above 35 U.S.C. § 112, second paragraph rejection. Regarding claim 10, this limitation is understood in the general understanding of the 'proxy' concept.

9. Applicant's arguments filed March 10, 1993 have been fully considered but they are not deemed to be persuasive.

10. The objection to the drawings has been revised in response to Applicant's amendments. The objection to Figure 1 stands, and it Appears that this objection may have been misunderstood or overlooked. The **BLOCKS 101,102,103, & 104**, as referred to in the specification, pages 3-4, are not labelled in the figure. Whether this is a prior art figure or not is another question, not being referred to by this objection (the drawing was 'corrected' by adding a prior art label in the last response).

11. The objection to the specification, and the corresponding rejection of claims 5-7, 11-18, under 35 U.S.C. § 112, first paragraph, stands in response to Applicant's amendments. The cited pages of the specification, as well as the portion of the appendix, do not fully disclose nor teach this feature of the invention. There must be an explanation of <u>how</u> this 'query' feature is accomplished, i.e. <u>when</u> a query is done, under what circumstances, based on what factors, <u>how</u> is it implemented, in order to be enabling.

12. The 35 U.S.C. § 112, second paragraph, rejection of claims 1-18 has been revised in response to Applicant's amendments.

13. The rejection of claims 1-4, 8-10 under 35 U.S.C. § 102(a),(b) & (e) stands in response to Applicant's amendments. Applicant's arguments appear to be directed primarily to

perceived differences between the invention and the cited references, rather than to delineating specifically claimed features of the invention which are not taught by the cited references. This rejection is based on the features in the claims, not those in the specification. Applicant's arguments are describing features not in the claims, and as such, are not pertinent.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Payne whose telephone number is (703) 305-9593.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

MMP
mmp
May 24, 1994

KEVIN A. KRIESS
PRIMARY EXAMINER
GROUP 2300